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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,966	10/24/2003	Mark A. Cleveland	024.0029	1845

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EXAMINER

PARSLEY, DAVID J

ART UNIT	PAPER NUMBER
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3643

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/692,966

Applicant(s)

CLEVELAND, MARK A.

Examiner

David J. Parsley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 12-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

Detailed Action

Amendment

1. This office action is in response to applicant's amendment dated 3-24-05 and this action is non-final.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 and 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,879,941 to Repe et al.

Referring to claim 1, Repe et al. discloses a low shock separation joint for coupling a first structure to a second structure comprising, a male member –at 8, having a first major surface and a second major surface wherein at least one projection is formed on the first and second major surface – see at the end of 8 in figures 2-6, a female member –at 2 and/or 7, having a first flange and a second flange – see figures 2-6, wherein at least one projection is formed on the first and second flange – see at the ends of 2 and at the ends of 7 in figures 2-6, wherein surfaces of the at least one projection on the first and second flange are respectively mated to surfaces of the at least one projection on the first and second major surface of the male member to prevent

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separation of the separation joint under tensile and compressive forces – see for example– at 2, 7,8 in figures 2-6, and the female member being configured to clamp and hold the male member without any fastening mechanism holding the first flange and the second flange to the male member – see for example figures 2-6, and an explosive device – at 3, placed within a cavity of the female member – at 7, the explosive device when detonated separates the male member from the female member without causing breakage of any component of the separation joint – see for example figures 2-6 and column 3 lines 1-31.

Referring to claim 2, Repe et al. discloses the female member includes a mount – at 3,4,7, 10, for attachment to the first structure – see for example figures 2-6.

Referring to claim 3, Repe et al. discloses the female member comprises a first and a second half structure – see at 7, wherein the first half structure includes the first flange and the second half structure includes the second flange – see for example figures 2-4, and wherein the first and second flanges oppose one another when the first and second half structures are coupled together – see for example at 7 in figures 2-6.

Referring to claim 4, Repe et al. discloses a clevis is formed – see at the ends of 7 in figures 2-4, for receiving the first structure when the first and second half structures of the female member are coupled together and wherein the clevis comprises a portion of both the first and second half structures of the female member – see for example at 7 in figures 2-6.

Referring to claim 5, Repe et al. discloses the male member – at 8, is placed between the first and second flange – at the ends of 7, and wherein fastening the first structure to the female member couples the female member to the male member – see for example figures 2-6.

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Referring to claim 6, Repe et al. discloses surfaces of at least one projection of the first and second flange mated respectively to surfaces of the at least one projection of the first and second major surface of the male member are non-locking – see for example figures 2-6.

Referring to claim 8, Repe et al. discloses the explosive device – at 3, has a first volume within the cavity of the female member – at 7, prior to detonation, wherein the explosive device has a second volume after detonation, and wherein the second volume is greater than the first volume – see for example figures 2-6.

Referring to claim 9, Repe et al. discloses the explosive device includes an expandable housing – at 3, around an explosive material and wherein the expandable housing does not rupture when the explosive material is detonated – see for example figures 2-6.

Referring to claim 10, Repe et al. discloses the male member further includes a mount – at 1, for attachment to the second structure – see for example figure 1.

Referring to claim 11, Repe et al. discloses the female member comprises a deformable material – see at 3 and 7 in figures 2-6.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Repe et al. as applied to claim 6 above, and further in view of U.S. Patent No. 5,735,626 to Khatiblou et al. Repe et al. further discloses the first and second flange move in an arc away from the male member – see for example figures 2-6. Repe et al. does not disclose the explosive device when detonated bends the first and second flange away from the male member. Khatiblou et al. does disclose the explosive device – at 68, when detonated bends the first and second flange – at 38, away from the male member – at 48-54 – see for example figures 1-3, and the first and second flange – at 38, move away from the male member – see for example figures 1-3. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Repe et al. and add the first and second flanges of Khatiblou et al., so as to allow for the device to be separable without breaking apart the structure of the device.

Response to Arguments

4. Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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The following patents are cited to further show the state of the art with respect to separation devices for launched devices in general:

U.S. Pat. No. 4,516,499 to Eyman – shows separation device

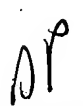
U.S. Pat. No. 4,685,376 to Noel et al. – shows separation device

U.S. Pat. No. 6,820,559 to Comtesse – shows separation device

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David J. Parsley whose telephone number is (571) 272-6890. The examiner can normally be reached on 9hr compressed.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on (571) 272-6891. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


David Parsley
Patent Examiner
Art Unit 3643


PETER M. POON
SUPERVISORY PATENT EXAMINER

8/4/05